REMARKS

In the non-Office Action, dated April 15, 2005, the Examiner rejects claims 1-6, 19-21,

and 36-38 under 35 U.S.C. § 102(b) as anticipated by KIM et al. (U.S. Patent No. 5,982,751);

rejects claims 7 and 12 under 35 U.S.C. § 102(e) as anticipated by KIM (U.S. Patent No.

6,215,768); rejects claims 23 and 26 under 35 U.S.C. § 102(b) as anticipated by ABE et al. (U.S.

Patent No. 5,654,963); rejects claims 29-35 under 35 U.S.C. § 102(e) as anticipated by LEVINE

(U.S. Patent No. 6,504,818); rejects claims 16-18 under 35 U.S.C. § 103(a) as unpatentable over

KIM in view of BARANYAI (U.S. Patent No. 4,499,577); rejects claim 22 under 35 U.S.C. §

103(a) as unpatentable over KIM et al. in view of BARANYAI; rejects claims 24 and 28 under

35 U.S.C. § 103(a) as unpatentable over ABE et al. in view of BARANYAI; rejects claim 27

under 35 U.S.C. § 103(a) as unpatentable over ABE et al. in view of KIM et al.; rejects claims 39

and 41 under 35 U.S.C. § 103(a) as unpatentable over KIM in view of LEVINE; and objects to

claims 8-11, 13-15, 25, and 40 as containing allowable subject matter. Applicants respectfully

traverse the above claim rejections under 35 U.S.C. §§ 102 and 103.

By way of the present amendment, Applicants cancel claim 8 without prejudice or

disclaimer and amend claims 3, 6, 7, and 9-11 to improve form. No new matter has been added

by way of the present amendment. Claims 1-7 and 9-41 are now pending.

Applicants note with appreciation the indication that claims 8-11, 13-15, 25, and 40

contain allowable subject matter.

Claims 1-6, 19-21, and 36-38 stand rejected under 35 U.S.C. § 102(b) as allegedly

anticipated by KIM et al. Applicants respectfully traverse this rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every

aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. Applicants submit that KIM et al. does not disclose or suggest the combination of features recited in Applicants' claims 1-6, 19-21, and 36-38.

Applicants' independent claim 1 is directed to a method for transferring data. The method includes receiving a request to transfer data; determining whether a counter value equals or exceeds a threshold, the counter value representing an amount of time; and transmitting the data when the counter value equals or exceeds the threshold. KIM et al. does not disclose or suggest this combination of features.

For example, KIM et al. does not disclose or suggest determining whether a counter value equals or exceeds a threshold, where the counter value represents an amount of time. The Examiner relies on col. 5, lines 30-34, and step 105 of Fig. 6 of KIM et al. for allegedly disclosing this feature of claim 1 (Office Action, pg. 2). Applicants disagree.

At col. 5, lines 26-43, KIM et al. discloses:

> If the cell has not experienced the congestion, other cells are checked continuously, and if the cell has experienced congestion, the congestion experienced counter value with respect to the service is increased by "1" in step 104, and it is determined whether the value of the congestion experienced counter is greater than a predetermined threshold value within a designated unit time in step 105.

> If the congestion experienced counter value is below a predetermined threshold value within the designated unit time, the congestion experienced counter value is cleared in step 106, and if the congestion experienced counter value exceeds a predetermined threshold value within the previously designated unit time, the congestion counter value is increased by "1" in step 107, and it is determined that the congestion counter value is greater than a predetermined unit time within the previously designated unit time in step 108.

This section of KIM et al. discloses a congestion experienced counter that tracks the number of

times a cell experiences congestion. This section of KIM et al. in no way discloses or suggests a counter value representing an amount of time. Therefore, this section of KIM et al. cannot disclose or suggest determining whether a counter value equals or exceeds a threshold, where the counter value represents an amount of time, as required by claim 1.

Step 105 of KIM et al.'s Fig. 6 determines whether the value in the congestion experienced counter is greater than a predetermined value within a designated unit time. As set forth above, KIM et al. discloses that a congestion experienced counter stores a value representing the number of times a cell experiences congestion. KIM et al. does not disclose or suggest a counter value representing an amount of time. Therefore, this section of KIM et al. cannot disclose or suggest determining whether a counter value equals or exceeds a threshold, where the counter value represents an amount of time, as required by claim 1.

Since KIM et al. does not disclose determining whether a counter value equals or exceeds a threshold, where the counter value represents an amount of time, KIM et al. cannot disclose transmitting the data when the counter value equals or exceeds the threshold, as also required by claim 1.

For at least the foregoing reasons, Applicants submit that claim 1 is not anticipated by KIM et al.

Claims 2-6 depend from claim 1. Therefore, Applicants submit that these claims are not anticipated by KIM et al. for at least the reasons given above with respect to claim 1. Moreover, these claims recite additional features not disclosed or suggested by KIM et al.

For example, claim 5 recites setting the threshold to exceed a flow control delay. The Examiner relies on the Abstract of KIM et al. for allegedly disclosing this feature (Office Action,

pg. 2). Applicants disagree.

In the Abstract, KIM et al. discloses:

> An improved rare probability connection call registration method using a PTI field information for an asynchronous transfer mode switching system which is capable of registering a rare probability connection code (RPCC) by using PTI field information, which includes the steps of setting a predetermined threshold value, checking payload type indication field information within each cell header which is currently being serviced, and determining whether the cell experienced congestion, continuously checking other cells when the cell did not experience congestion, increasing the congestion experienced counter value with respect to the service when the cell experienced congestion, and comparing the congestion experienced counter value with a predetermined threshold value within a previously designated unit time, clearing the congestion experienced counter value when the congestion experienced counter value is less than a predetermined threshold value within the previously designated unit time, increasing the congestion experienced counter value when the congestion experienced counter value exceeds the predetermined threshold value within a previously designated unit time, and comparing the congestion counter value with a predetermined threshold value within the previously designated unit time.

This section of KIM et al. discloses setting a predetermined threshold value. This section of KIM et al. in no way discloses or suggests, however, that the predetermined threshold value is set to exceed a flow control delay, as specifically required by claim 5. The Examiner does not point to any section of KIM et al. that discloses this feature.

For at least these additional reasons, Applicants submit that claim 5 is not anticipated by KIM et al.

Claim 6 recites resetting the counter value after transmitting the data. Applicants submit that since KIM et al. does not disclose a counter value representing an amount of time, KIM et al. cannot disclose resetting the counter value after transmitting the data, as required by claim 6.

Even assuming, for the sake of argument, that KIM et al.'s congestion experienced counter value could reasonably be construed as a counter value representing an amount of time,

KIM et al. does not disclose or suggest resetting the congestion experienced counter value after transmitting data. In stark contrast, KIM et al. discloses that the counter value is reset if the number of congestion experiences does not exceed a threshold (see step 106 in Fig. 6). KIM et al. does not disclose or suggest resetting the counter value after transmitting the data, as required by claim 6.

For at least these additional reasons, Applicants submit that claim 6 is not anticipated by KIM et al.

Independent claim 19 is directed to a method for preventing a buffer overflow condition. The method includes determining a delay associated with transmitting a flow control signal from the buffer to a device that transmits data to the buffer; setting a threshold value to equal or exceed the determined delay; and limiting transmission of data to the buffer based on the threshold value. KIM et al. does not disclose or suggest this combination of features.

For example, KIM et al. does not disclose or suggest determining a delay associated with transmitting a flow control signal from a buffer to a device that transmits to the buffer. The Examiner did not address this feature in the Office Action. As such, a *prima facie* basis for denying patentability has not been established with respect to claim 19. In any event, KIM et al. in no way discloses or suggests this feature of claim 19. Accordingly, KIM et al. cannot anticipate claim 19.

Since KIM et al. does not disclose or suggest determining a delay associated with transmitting a flow control signal from a buffer to a device that transmits to the buffer, KIM et al. cannot disclose or suggest setting a threshold value to equal or exceed the determined delay or limiting transmission of data to the buffer based on the threshold value, as also required by claim

19. The Examiner did not address these features in the Office Action. Therefore, a *prima facie* basis for denying patentability has not been established with respect to claim 19. If this rejection is maintained, Applicants respectfully request that the features of claim 19 be specifically addressed.

For at least the foregoing reasons, Applicants submit that claim 19 is not anticipated by KIM et al.

Claims 20 and 21 depend from claim 19. Therefore, these claims are not anticipated by KIM et al. for at least the reasons given above with respect to claim 19.

Independent claim 36 recites features similar to features described above with respect to claim 1. Therefore, this claim is not anticipated by KIM et al. for at least reasons similar to reasons given above with respect to claim 1.

Claims 37 and 38 depend from claim 36. Therefore, these claims are not anticipated by KIM et al. for at least the reasons given above with respect to claim 36.

Claims 7 and 12 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by KIM. Applicants respectfully traverse this rejection.

Claim 7 has been amended herewith to include the features recited in claim 8, which has been indicated in the Office Action as containing allowable subject matter. As such, claim 7 is allowable over the art of record.

Claim 12 depends from claim 7. Therefore, this claim is allowable over the art of record for at least the reasons given above with respect to claim 7.

Claims 23 and 26 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by ABE et al. Applicants respectfully traverse this rejection.

Independent claim 23 is directed to a system for preventing a buffer overflow condition. The system includes a register comprising at least one entry configured to store a threshold value, where the threshold value equals or exceeds a delay associated with transferring a flow control signal from the buffer to a device that transmits data to the buffer; at least one counter configured to store a value representing an amount of time since a previous data transmission to the buffer; and a comparator configured to compare the amount of time to the threshold value, and permit transmission of data to the buffer when the amount of time equals or exceeds the threshold value. ABE et al. does not disclose or suggest this combination of features.

For example, ABE et al. does not disclose or suggest a register comprising at least one entry configured to store a threshold value, where the threshold value equals or exceeds a delay associated with transferring a flow control signal from the buffer to a device that transmits data to the buffer. The Examiner does not address these features in the Office Action (see pg. 3 of the Office Action). Accordingly, a *prima facie* basis for denying patentability has not been established with respect to claim 23.

Nonetheless, ABE et al. is directed to a system for controlling virtual circuit connections (see Abstract). ABE et al. in no way discloses or suggests a register comprising at least one entry configured to store a threshold value, where the threshold value equals or exceeds a delay associated with transferring a flow control signal from the buffer to a device that transmits data to the buffer, as required by claim 23.

If this rejection is maintained, Applicants respectfully request that the Examiner specifically address all of the features of claim 23.

For at least the foregoing reasons, Applicants submit that claim 23 is not anticipated by

ABE et al.

Claim 26 depends from claim 23. Therefore, this claim is not anticipated by ABE et al. for at least the reasons given above with respect to claim 23.

Claims 29-35 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by LEVINE. Applicants respectfully traverse this rejection.

Claim 29 is directed to a method for controlling a reading of data from a buffer. The method includes tracking an amount of data read from the buffer; determining whether the amount exceeds a threshold; and reducing a speed at which data is read when the amount exceeds the threshold. LEVINE does not disclose or suggest this combination of features.

For example, LEVINE does not disclose or suggest tracking an amount of data read from a buffer. The Examiner relies on the Abstract of LEVINE for allegedly disclosing this feature (Office Action, pg. 4). Applicants respectfully disagree.

In the Abstract, LEVINE discloses:

> A method of controlling congestion in data networks wherein data is received by an egress port and buffered in a local buffer associated with a source of the element. For each data element received, the egress port determines whether a global threshold is exceeded and, if so, requests all data sources to reduce their rate of data delivery to the egress port. Similarly, the egress port determines whether a local threshold is exceeded and, if so, requests the one source associated with the local buffer to reduce the data delivery rate to the egress port. Optionally, if the data delivery rate of the one source falls below a predetermined minimum rate, the one source may refuse the request. In response, the egress port requests other data sources to reduce their rate of data delivery to the egress port.

This section of LEVINE discloses that for each data element received by an egress port, the egress port determines whether a global threshold is exceeded. Clearly, one skilled in the art would readily appreciate that receiving a data element at an egress port is different than tracking an amount of data <u>read from</u> a buffer. This section of LEVINE does not disclose or suggest this

feature of claim 29.

Since LEVINE does not disclose or suggest tracking an amount of data read from a buffer, LEVINE cannot disclose or suggest reducing a speed at which data is read when the amount exceeds the threshold, as also required by claim 29. In stark contrast, LEVINE discloses reducing data delivery to a buffer of the egress port (see Abstract). LEVINE does not disclose or suggest reducing a speed at which data is read when the amount exceeds the threshold, as required by claim 29.

For at least the foregoing reasons, Applicants submit that claim 29 is not anticipated by LEVINE.

Claims 30-32 depend from claim 29. Therefore, these claims are not anticipated by LEVINE for at least the reasons given above with respect to claim 29. Moreover, these claims recite additional features not disclosed or suggested by LEVINE.

For example, claim 30 recites storing a value representing the speed in a register. The Examiner relies on element 120 and col. 5, lines 10-16, of LEVINE for allegedly disclosing this feature (Office Action, pg. 4). Applicants respectfully disagree.

Element 120 corresponds to LEVINE's memory (Fig. 4). LEVINE in no way discloses or suggests that memory 120 stores a value representing the speed at which data is read, as required by claim 30.

At col. 5, lines 10-16, LEVINE discloses:

There, the egress port 100 includes a processor 110 and a memory 120. The memory 120 may include a data storage device 122, such as a magnetic or optic storage device, RAM 124 and/or ROM memories 126. The data buffer is provided in the data storage device 122 and/or the RAM memory 124. The processor 110 executes program instructions stored in memory 120 to perform the method of FIG. 3.

This section of LEVINE disclose that memory 120 can include a data storage device 122, a RAM 124, and/or a ROM 126. This section of LEVINE in no way discloses or suggests that memory 120 stores a value representing the speed at which data is read, as required by claim 30.

For at least these additional reasons, Applicants submit that claim 30 is not anticipated by LEVINE.

Claim 32 recites that reducing the speed includes masking buffer read opportunities. The Examiner relies on col. 3, line 65, of LEVINE for allegedly disclosing "masking a buffer" (Office Action, pg. 4). Applicants submit that the Examiner has misconstrued the feature of claim 32.

Claim 32 does not recite masking a buffer. Instead, claim 32 specifically recites masking buffer read opportunities. LEVINE does not disclose or suggest this feature.

At col. 3, lines 64-66, LEVINE discloses "[T]he local buffers may be assigned dynamically as sources activate and deactivate." This section of LEVINE in no way relates to masking buffer read opportunities. If this rejection is maintained, Applicants respectfully request that the Examiner explain how this section of LEVINE relates to the feature of claim 32.

For at least these additional reasons, Applicants submit that claim 32 is not anticipated by LEVINE.

Independent claim 33 recites features similar to features described above with respect to claim 29. Therefore, this claim is not anticipated by LEVINE for at least reasons similar to reasons given above with respect to claim 29.

Claims 34 and 35 depend from claim 33. Therefore, these claims are not anticipated by LEVINE for at least the reasons given above with respect to claim 33. Moreover, these claims

recite features similar to features recited in claims 30-32. Therefore, claims 34 and 35 are also not anticipated by LEVINE for at least reasons similar to reasons given above with respect to claims 30-32.

Claims 16-18 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over KIM in view of BARANYAI. Applicants respectfully traverse this rejection.

Claims 16-18 depend from claim 7. Since claim 7, as amended, is patentable over the art of record, claims 16-18 are also patentable over the art of record.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over KIM et al. in view of BARANYAI. Applicants respectfully traverse this rejection.

Claim 22 depends from claim 19. The disclosure of BARANYAI does not remedy the deficiencies in the disclosure of KIM et al. set forth above with respect to claim 19. Therefore, claim 22 is patentable over KIM et al. and BARANYAI, whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 19.

Claims 24 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over ABE et al. in view of BARANYAI. Applicants respectfully traverse this rejection.

Claims 24 and 28 depend from claim 23. The disclosure of BARANYAI does not remedy the deficiencies in the disclosure of ABE et al. set forth above with respect to claim 23. Therefore, claims 24 and 28 are patentable over ABE et al. and BARANYAI, whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 23.

Claim 27 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over ABE et al. in view of KIM et al. Applicants respectfully traverse this rejection.

Claim 27 depends from claim 23. The disclosure of KIM et al. does not remedy the deficiencies in the disclosure of ABE et al. set forth above with respect to claim 23. Therefore, claim 27 is patentable over ABE et al. and KIM et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 23.

Claims 39 and 41 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over KIM in view of LEVINE. Applicants respectfully traverse this rejection.

Independent claim 39 is directed to a network device that includes a first flow control device and a second flow control device. The first flow control device includes a transfer request unit configured to generate a request to transfer data, a rate limiter configured to control a rate at which data is transferred, and an arbiter configured to receive the request and transfer the data at a rate determined by the rate limiter. The second flow control device includes a throttle controller configured to track an amount of data read from a buffer, and reduce a speed at which data is read from the buffer when the amount exceeds a threshold. KIM and LEVINE do not disclose or suggest this combination of features.

For example, KIM and LEVINE do not disclose or suggest a throttle controller configured to track an amount of data read from a buffer. The Examiner admits that KIM does not disclose this feature and relies on the Abstract of LEVINE for allegedly disclosing this feature (Office Action, pg. 6). Applicants submit that this section of LEVINE does not disclose or suggest the above feature of claim 39.

The Abstract of LEVINE is reproduced above. This section of LEVINE discloses that for each data element received by an egress port, the egress port determines whether a global threshold is exceeded. Clearly, one skilled in the art would readily appreciate that receiving a

data element at an egress port is different than tracking an amount of data read from a buffer. This section of LEVINE does not disclose or suggest this feature of claim 39.

Since KIM and LEVINE do not disclose or suggest a throttle controller configured to track an amount of data read from a buffer, KIM and LEVINE cannot disclose or suggest the throttle controller reducing a speed at which data is read from the buffer when the amount exceeds a threshold, as also required by claim 39. In stark contrast, LEVINE discloses reducing data delivery to a buffer of the egress port (see Abstract). LEVINE does not disclose or suggest reducing a speed at which data is read from the buffer when the amount exceeds a threshold, as required by claim 39.

For at least the foregoing reasons, Applicants submit that claim 39 is patentable over KIM and LEVINE, whether taken alone or in any reasonable combination.
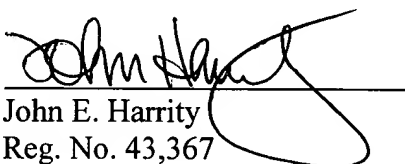
Claim 41 depends from claim 39. Therefore, this claim is patentable over KIM and LEVINE, whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 39.

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of pending claims 1-7 and 9-41.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is

hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess

fees to such deposit account.

Respectfully submitted,

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